

STATUS
DISCUSSION / REVIEW
TENDER PURPOSE
FABRICATION
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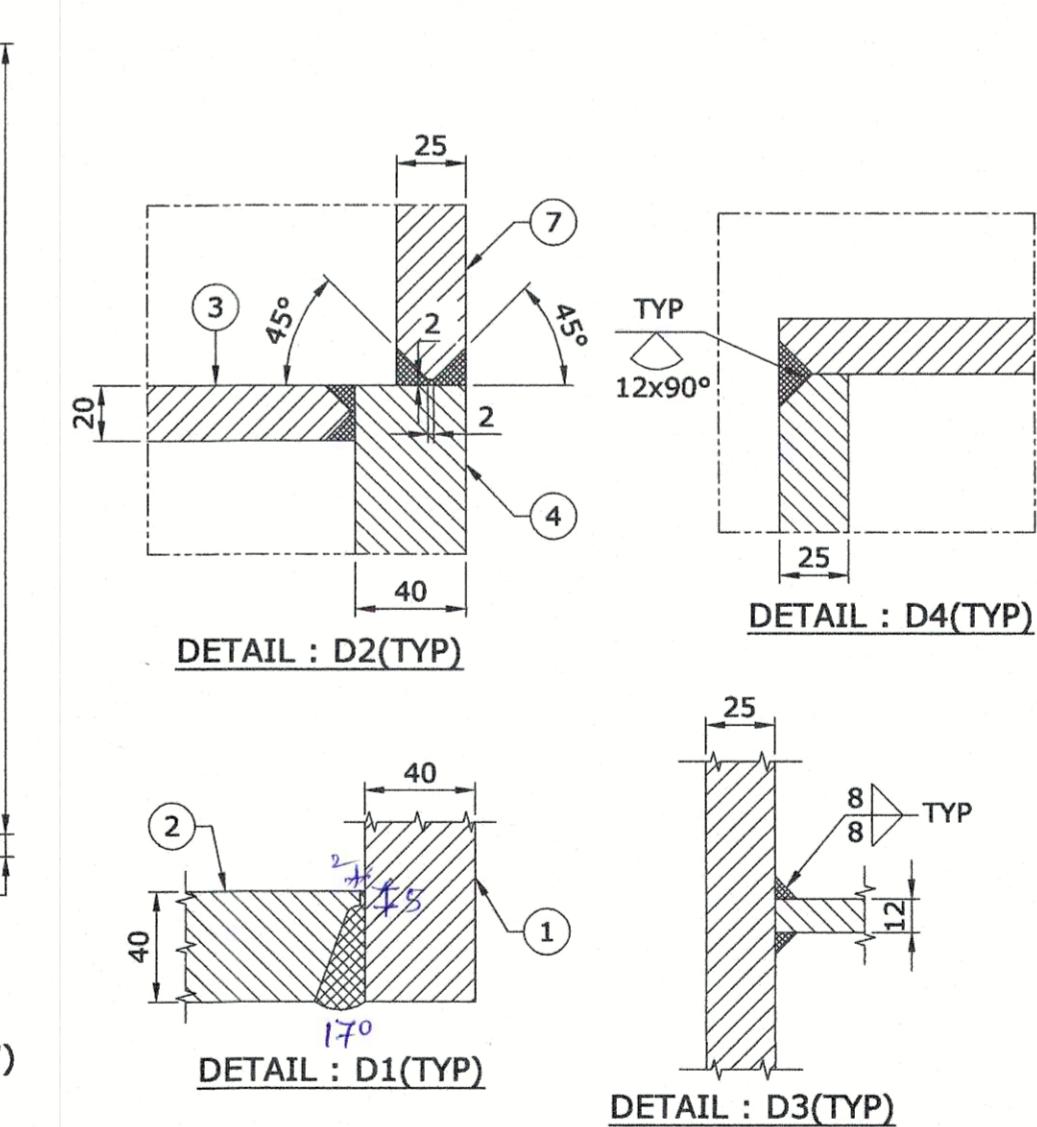
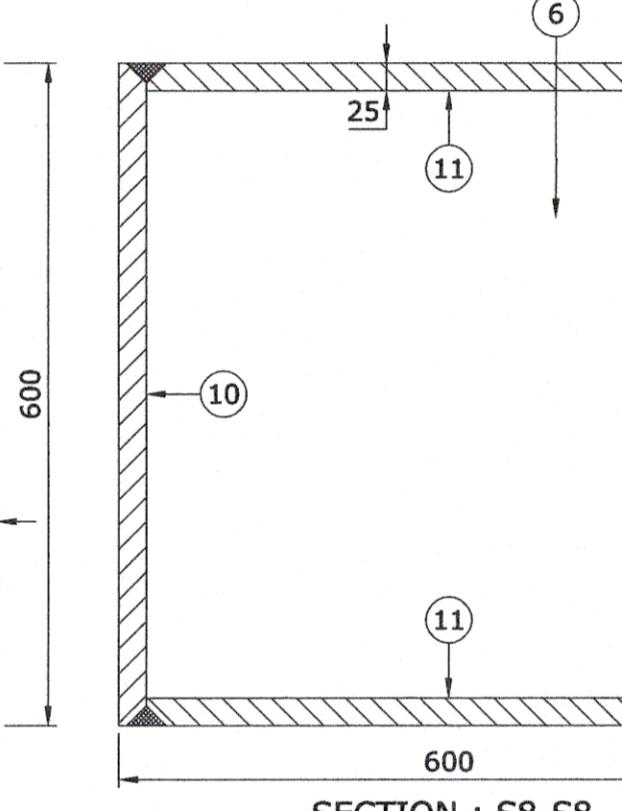
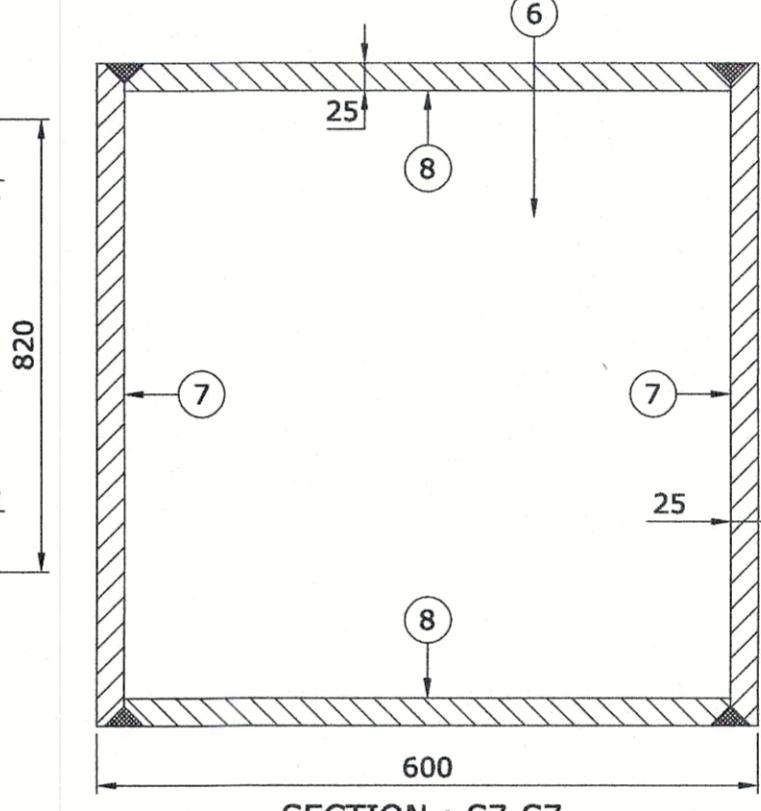
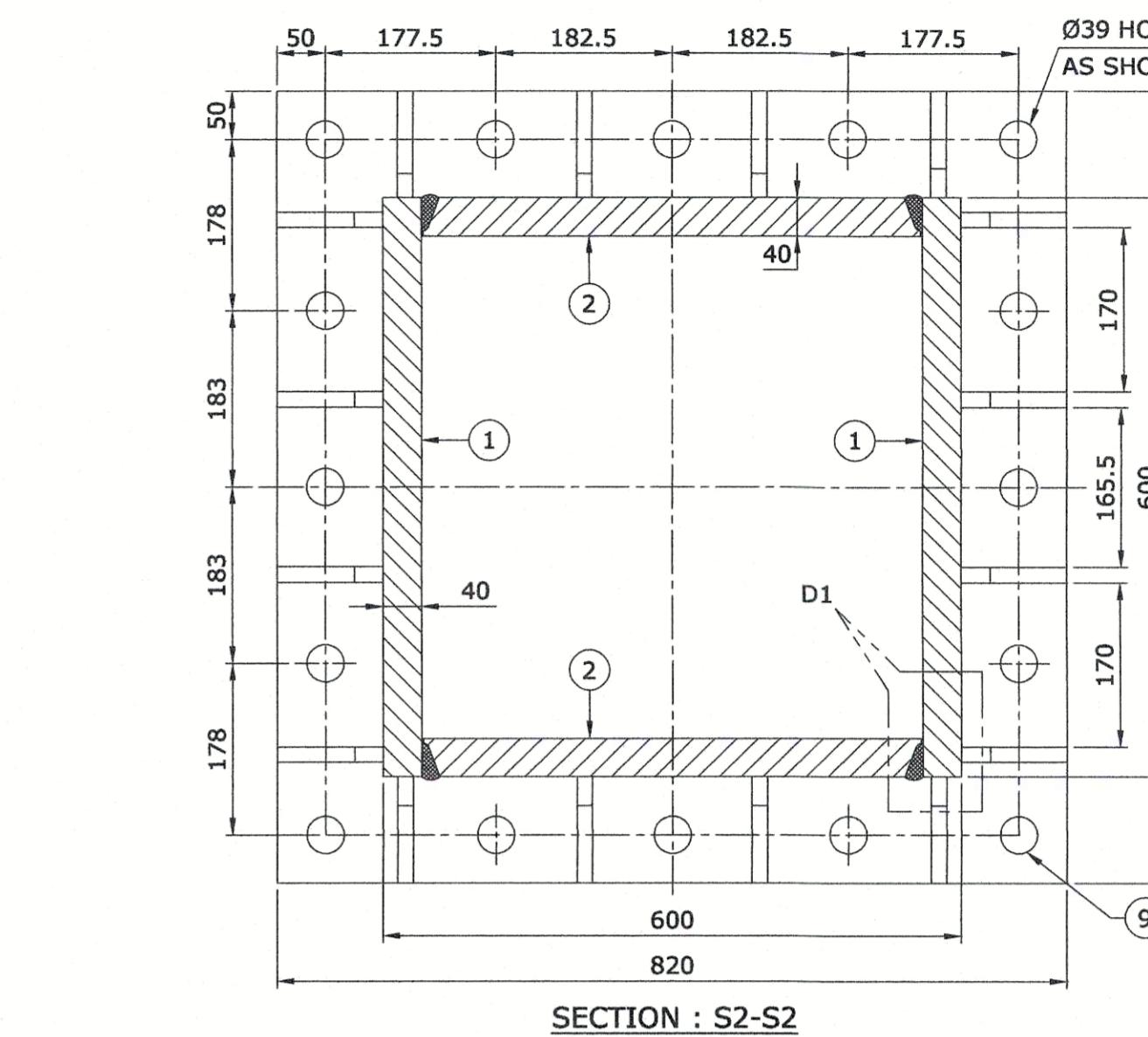
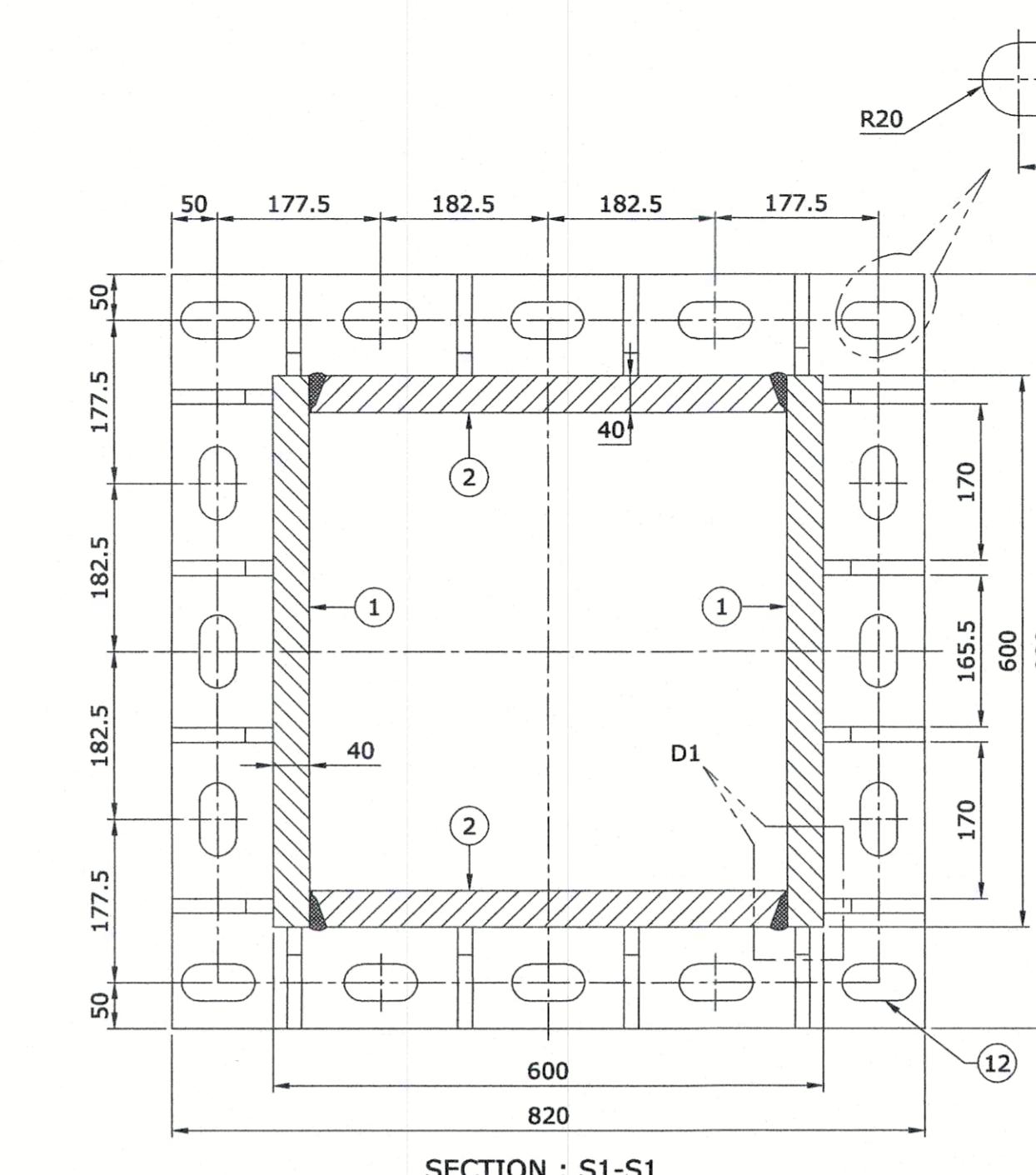
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ALL DIMENSIONS ARE IN MILLIMETERS
REMOVE SHARP EDGES & BURRS
CHAMFER 1 M.M. X 45°
MACHINING FINISH IN MICRONS :-
▽ 8 - 25 ▽▽ 1.6 - 8
▽▽▽ 0.025 - 1.6 ▽▽▽▽ < 0.025

DEVIATION FOR NON TOLERANCED DIMENSIONS
(IS -2102)
DIAMETERS & LENGTHS
UP TO & INCL. 6 ± 0.1
8 - 120 ± 0.2
30 - 120 ± 0.3
120 - 315 ± 0.5
315 - 1000 ± 0.8
1000 - 2000 ± 1.2
2000 - 4000 ± 2.0
4000 & ABOVE ± 3.0

LENGTH IN M.M. OF
SHORTER SIDE OF
ANGLE UPTO & INCL.
1 - 6 ± 1°-0'
6 - 30 ± 0°-3'
30-120 ± 0°-2'
120-400 ± 0°-1'

SCEND
SHAR CENTRAL DESIGNS
DESIGNED *[Signature]*
DRAWN *[Signature]* 09-10-2023
DRG.CHECKED *[Signature]*
APPROVED *[Signature]*

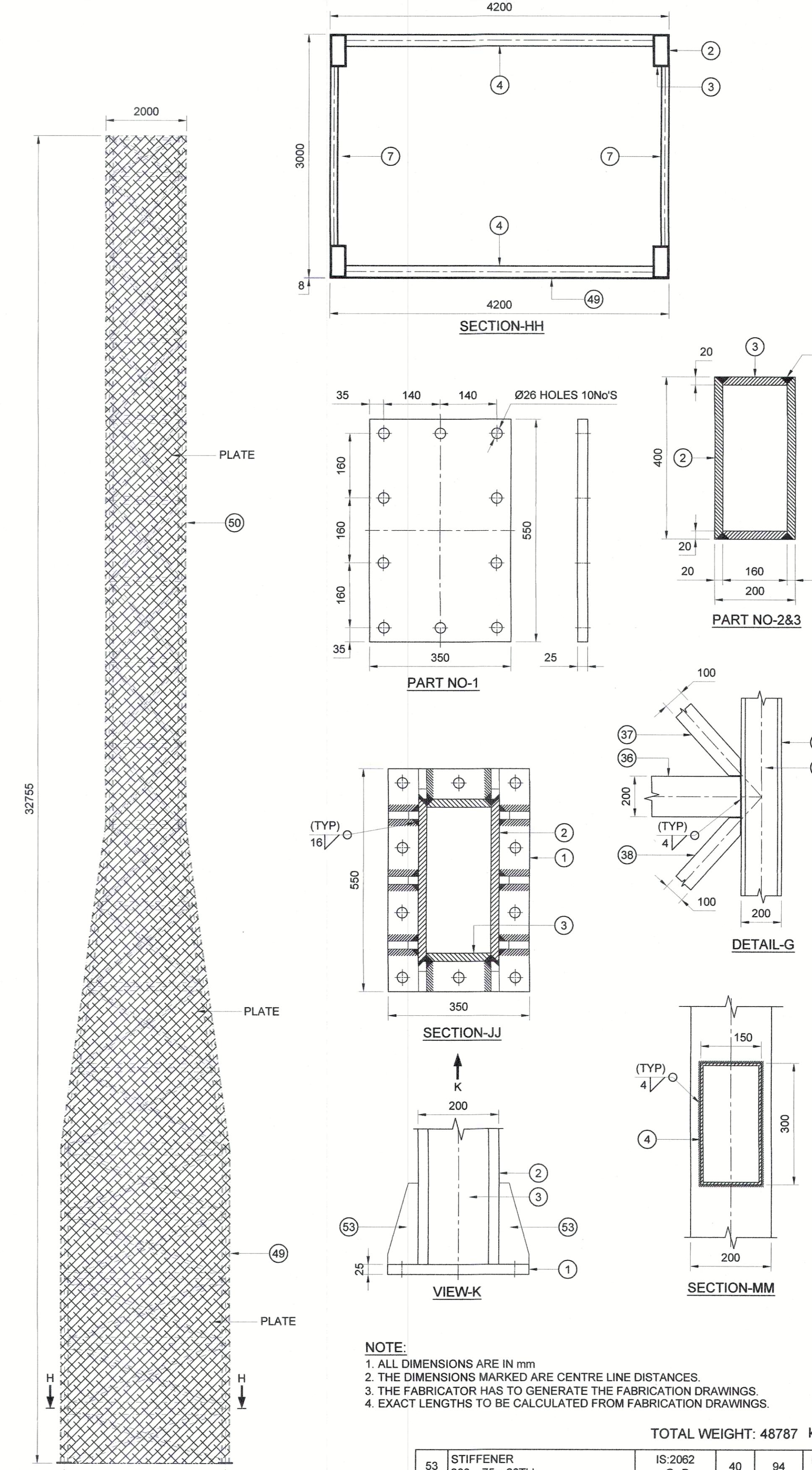
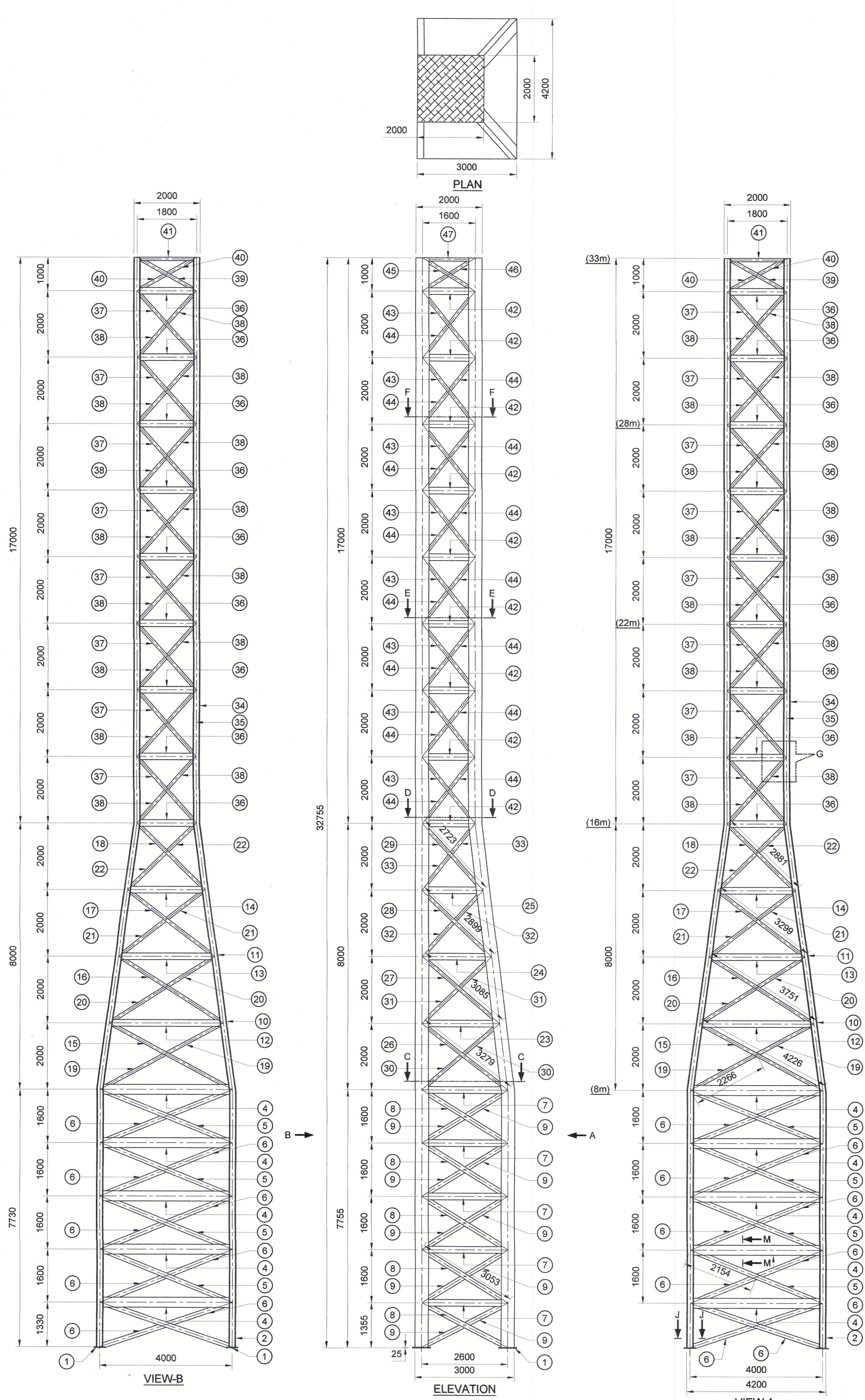
TITLE
DETAILS OF MLP LEG (SLC PROJECT)
GOVERNMENT OF INDIA
INDIAN SPACE RESEARCH ORGANISATION
SATISH DHAWAN SPACE CENTRE SHAR
SHRIHARIKOTA
PROJECTION
SCALE 1 : 10
DRG. NO. 10-STR-12-1-23/A1
SHEET 9
OF 14



S.NO	DESCRIPTION	MATERIAL	QTY	W.T	REMARKS
14	M39 HEX.BOLT AND NUT WITH TWO WASHERS - 120Lg	IS : 1364	64 sets	-	
13	STIFFENER 200 x 110 x 16Thk	IS : 2062 E250 Gr : B	48	133	
12	PLATE 820 x 820 x 40Thk	IS : 2062 E250 Gr : B	4	845	
11	PLATE 3380 x 550 x 25Thk	IS : 2062 E250 Gr : B	4	1459	
10	PLATE 3380 x 600 x 25Thk	IS : 2062 E250 Gr : B	4	1592	
9	PLATE 820 x 820 x 32Thk	IS : 2062 E250 Gr : B	8	1351	
8	PLATE 4780 x 550 x 25Thk	IS : 2062 E250 Gr : B	4	2064	
7	PLATE 4780 x 600 x 25Thk	IS : 2062 E250 Gr : B	4	2251	
6	PLATE 550 x 550 x 12Thk	IS : 2062 E250 Gr : B	20	570	
5	PLATE 566 x 520 x 40Thk	IS : 2062 E250 Gr : B	4	370	
4	PLATE 600 x 566 x 40Thk	IS : 2062 E250 Gr : B	4	427	
3	PLATE 520 x 520 x 20Thk	IS : 2062 E250 Gr : B	20	849	
2	PLATE 1430 x 520 x 40Thk	IS : 2062 E250 Gr : B	8	1868	
1	PLATE 1430 x 600 x 40Thk	IS : 2062 E250 Gr : B	8	2155	

TOTAL WEIGHT 15933 kg(Approx.)

BUTT WELD (TYP)



STATUS		S
DISCUSSION / REVIEW		
TENDER PURPOSE		
FABRICATION		
UNRESTRICTED	RESTRICTED	
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SIGN	DATE
<i>John</i>	<i>09/10/23</i>
CONFIDENTIAL	
OF SDSC-SHAR WORK / PROJECT NOT TO BE COPIED PROJECTS UNLESS APPROVED BY SHAR.	

	15730 X 4200 X 6 MM
DO NOT SCALE THE DRAWING	DEVIATION FOR
ASK IF IN DOUBT	
UNLESS OTHERWISE SHOWN	DIAMETERS & L.
ALL DIMENSIONS ARE IN MILLIMETERS	UPTO & INCL. 6
REMOVE SHARP EDGES & BURRS	6 - 30
CHAMFER 1 M.M. X 45°	30 - 120
MACHINING FINISH IN MICRONS :-	120 - 315
▽ 8 - 25 ▽▽ 1.6 - 8	315 - 1000
▽▽ 0.025 - 1.6 ▽▽▽▽ < 0.025	1000 - 2000
	2000 - 4000
	4000 & ABOVE

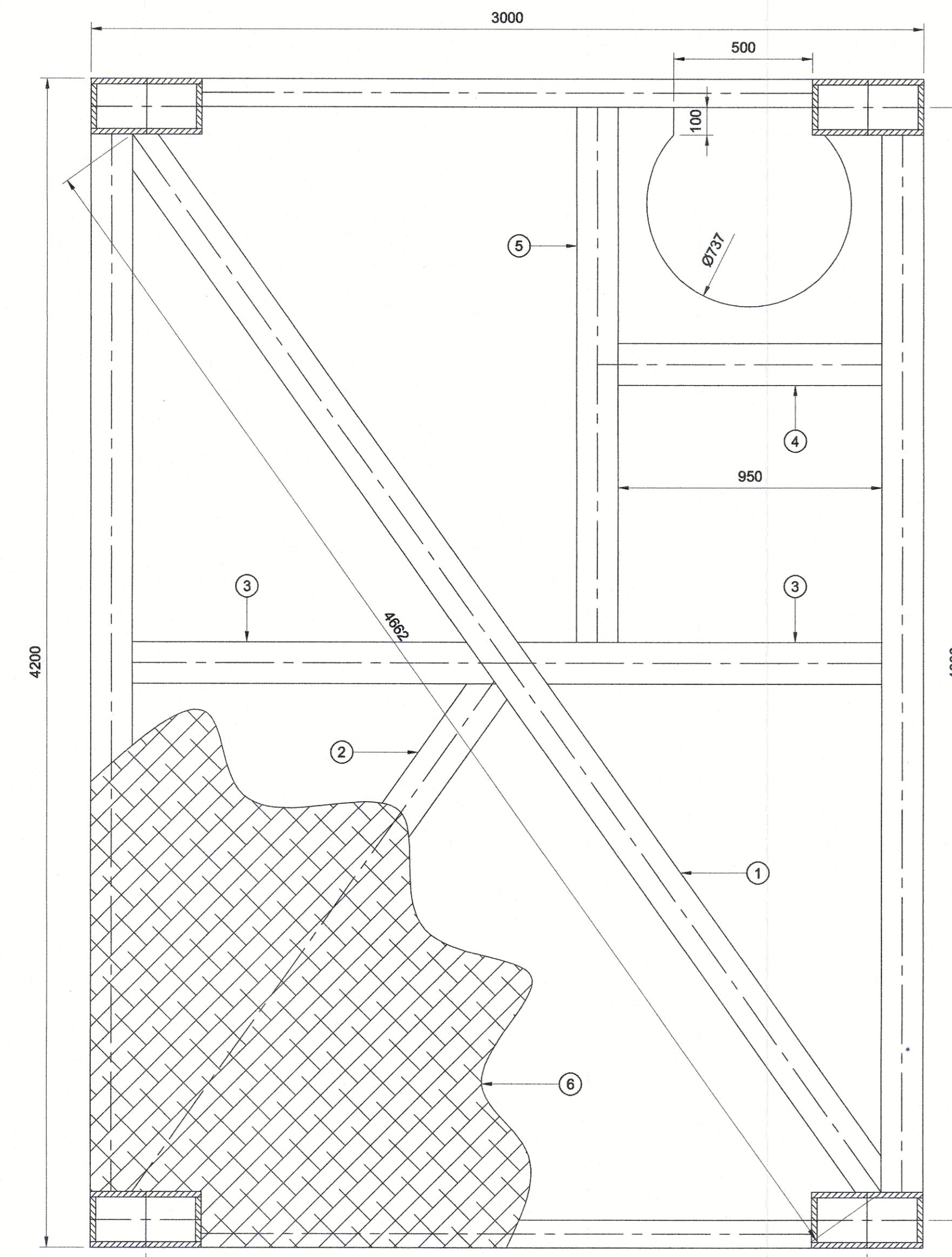
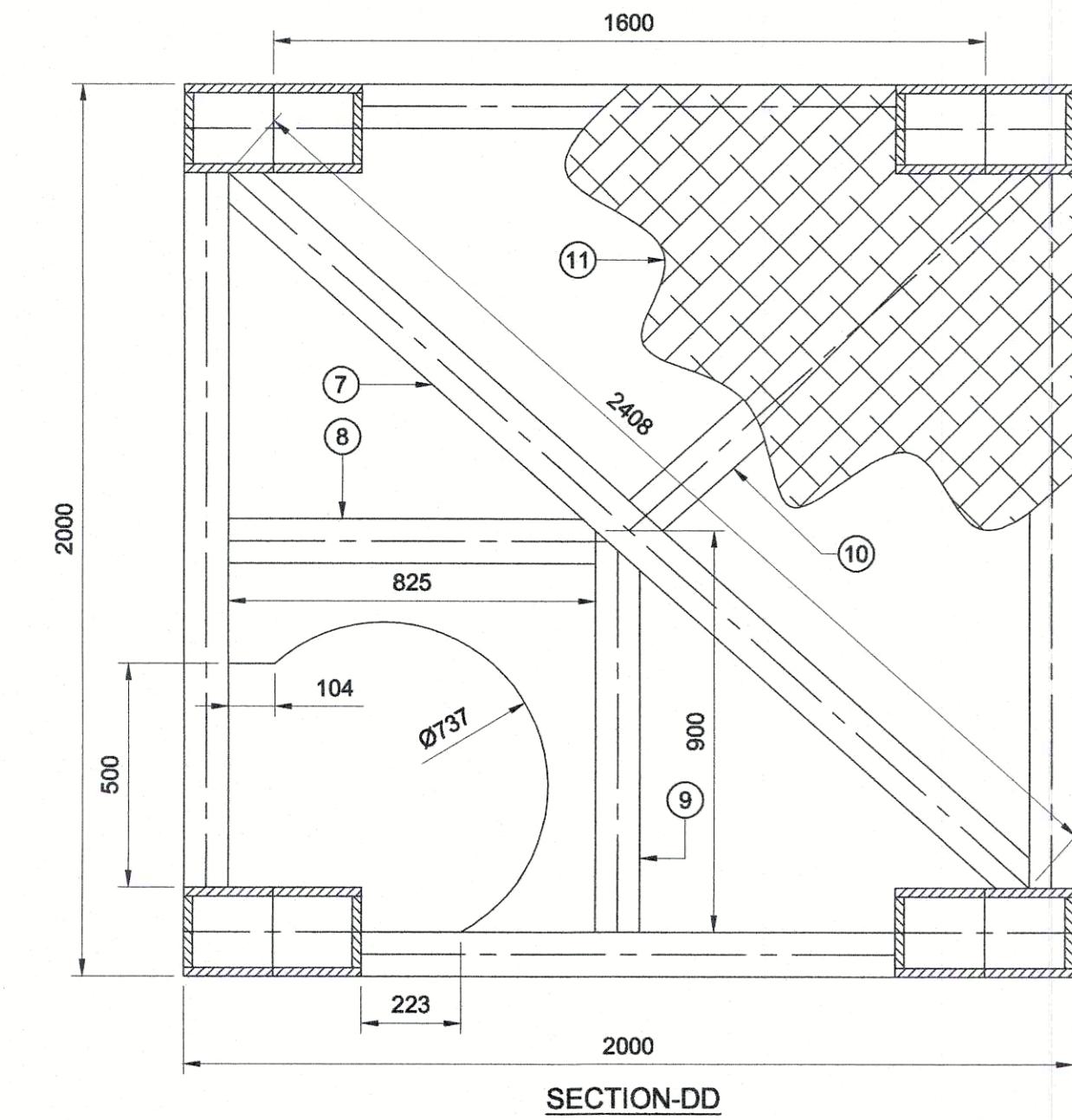
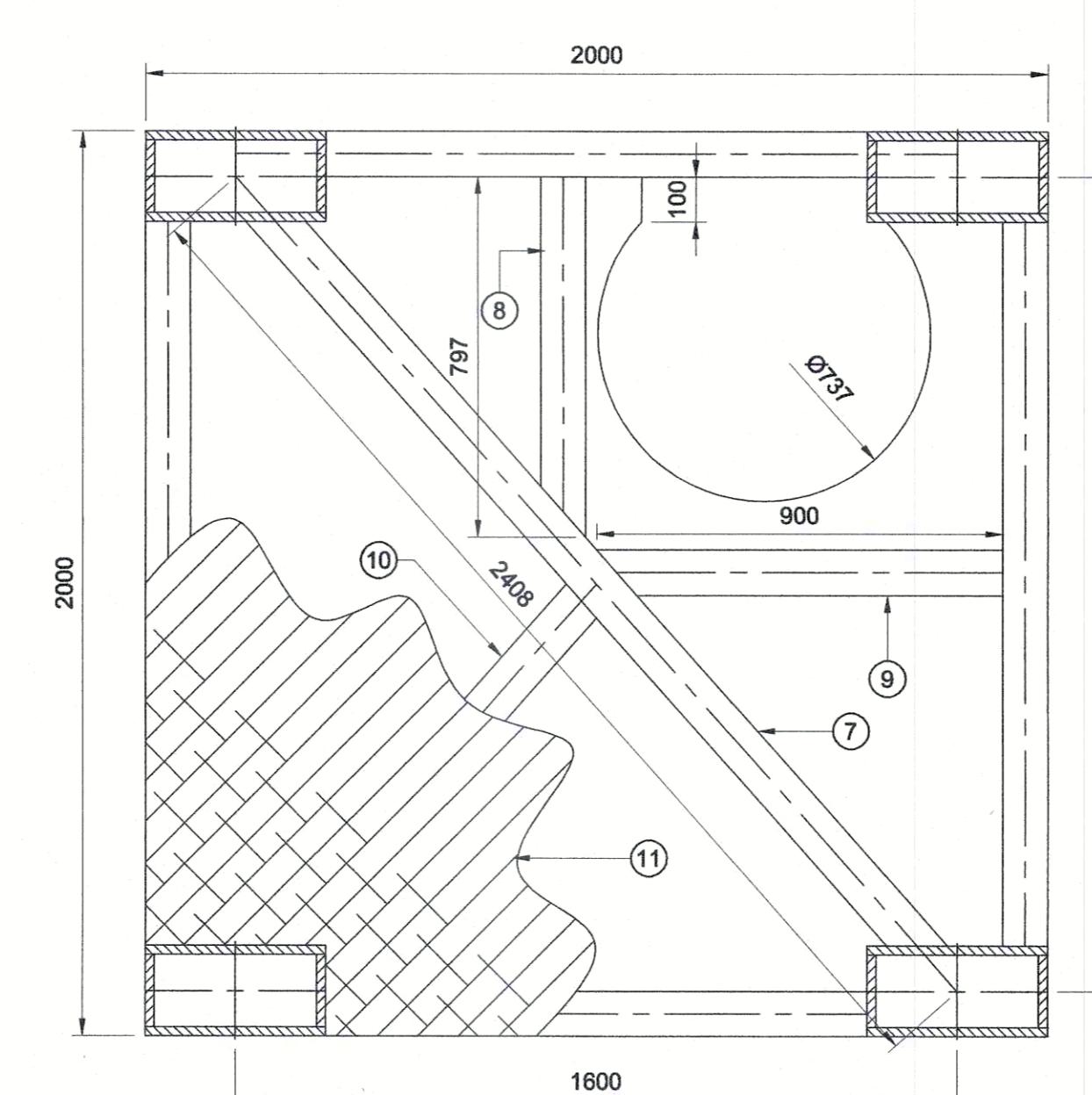
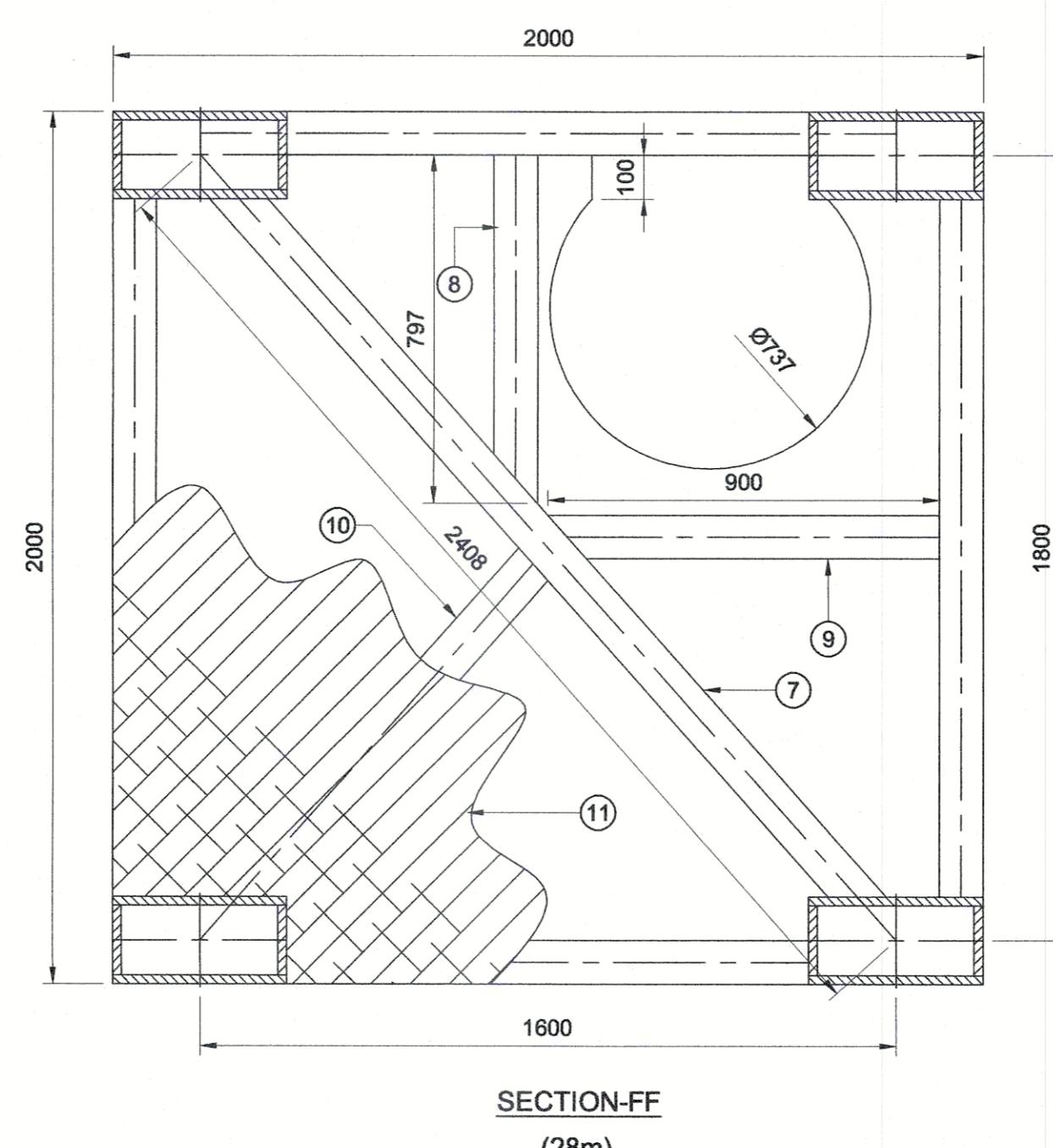
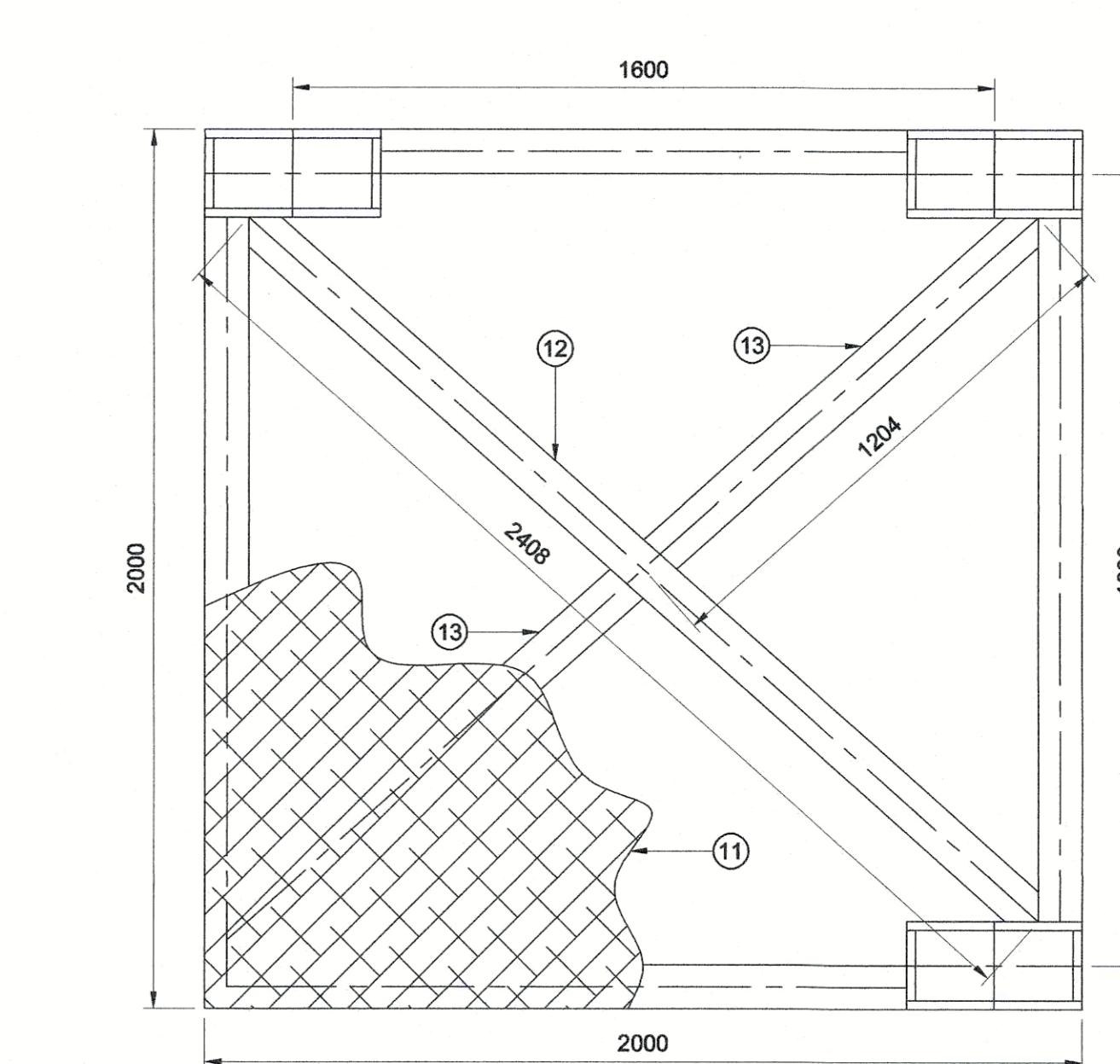
	Gr-B	
NON TOLERANCED DIMENSIONS (IS -2102)		SCEND
LENGTHS	LENGTH IN M.M. OF SHORTEST SIDE OF	SHAR CENTRAL DESIGNS

TITLE		ASSEMBLY OF UMBILICAL TOWER (UT) FOR MLS (SLC PROJECT)	
		GOVERNMENT OF INDIA	
		INDIAN SPACE RESEARCH ORGANISATION	
		SATISH DHAWAN SPACE CENTRE SHAR	
		SRIHARIKOTA	
SCALE	1 : 50	DRG. NO.	10-STR-12-1-23/A1
		PROJECTION	
			
		SHEET 10	
		OF 14	

**TITLE ASSEMBLY OF UMBILICAL TOWER (UT) FOR MLS
(SLC PROJECT)**

**GOVERNMENT OF INDIA
INDIAN SPACE RESEARCH ORGANISATION
SATISH DHAWAN SPACE CENTRE SHAR
SRIHARIKOTA**

SCALE	1 : 50	DRG. NO.	10-STR-12-1-23/A1	SHEET 10 OF 14
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SECTION-CC
(8m)SECTION-DD
(16m)SECTION-EE
(22m)SECTION-FF
(28m)TOP VIEW
(33m)

TOTAL WEIGHT: 2476 kg(Approx.)

S.NO	DESCRIPTION	MATERIAL	QTY	W.T	REMARKS
13	SQ. HOLLOW SECTION 100 x 100 x 6 Thk - 1204 Lg	IS:4923	2	41	
12	SQ. HOLLOW SECTION 100 x 100 x 6 Thk - 2408 Lg	IS:4923	1	41	
11	CHQ. PLATE 2000 x 2000 x 8 Thk	IS:2062 Gr-B	4	1005	
10	SQ. HOLLOW SECTION 100 x 100 x 6 Thk - 1204 Lg	IS:4923	3	61	
9	SQ. HOLLOW SECTION 100 x 100 x 6 Thk - 900 Lg	IS:4923	3	46	
8	SQ. HOLLOW SECTION 100 x 100 x 6 Thk - 797 Lg	IS:4923	3	41	
7	SQ. HOLLOW SECTION 100 x 100 x 6 Thk - 2408 Lg	IS:4923	3	123	
6	CHQ. PLATE 4200 x 3000 x 8 Thk	IS:2062 Gr-B	1	791	
5	SQ. HOLLOW SECTION 150 x 150 x 6 Thk - 1925 Lg	IS:4923	1	51	
4	SQ. HOLLOW SECTION 150 x 150 x 6 Thk - 950 Lg	IS:4923	1	25	
3	SQ. HOLLOW SECTION 150 x 150 x 6 Thk - 1315	IS:4923	2	69	
2	SQ. HOLLOW SECTION 150 x 150 x 6 Thk - 2255	IS:4923	1	60	
1	SQ. HOLLOW SECTION 150 x 150 x 6 Thk - 4662	IS:4923	1	123	

NOTE:

1. ALL DIMENSIONS ARE IN mm
2. THE DIMENSIONS MARKED ARE CENTRE LINE DISTANCES.
3. THE FABRICATOR HAS TO GENERATE THE FABRICATION DRAWINGS.
4. EXACT LENGTHS TO BE CALCULATED FROM FABRICATION DRAWINGS.

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FABRICATION		
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CHAMFER 1 M.M. X 45°
MACHINING FINISH IN MICRONS :-
▽ 8 - 25 ▽▽ 1.6 - 8
▽▽▽ 0.025 - 1.6 ▽▽▽▽ < 0.025

DEVIATION FOR NON TOLERANCED DIMENSIONS
(IS -2102)

DIAMETERS & LENGTHS UPTO & INCL 6 ±0.1	LENGTH IN M.M. OF SHORTER SIDE OF ANGLE UPTO & INCL
6 - 30 ±0.2	30 - 120 ±0.3
30 - 150 ±0.5	120 - 300 ±0.5
315 - 1000 ±1.2	300 - 1200 ±0.5
1000 - 2000 ±2.0	2000 - 4000 ±2.0
4000 & ABOVE ±3.0	30-120 ±0°-2°
	120-400 ±0°-1°

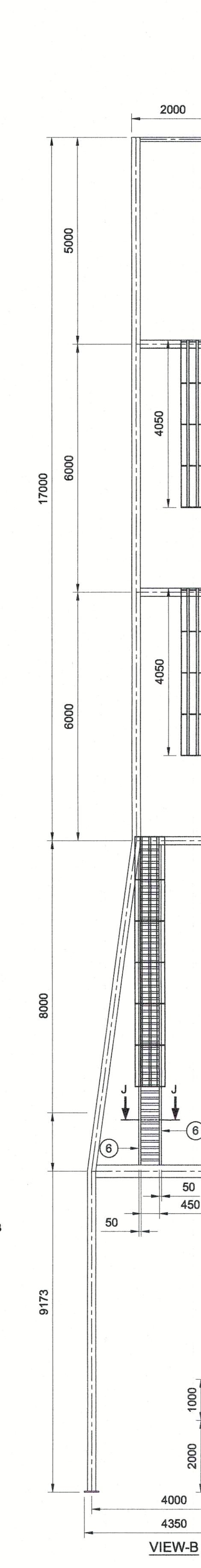
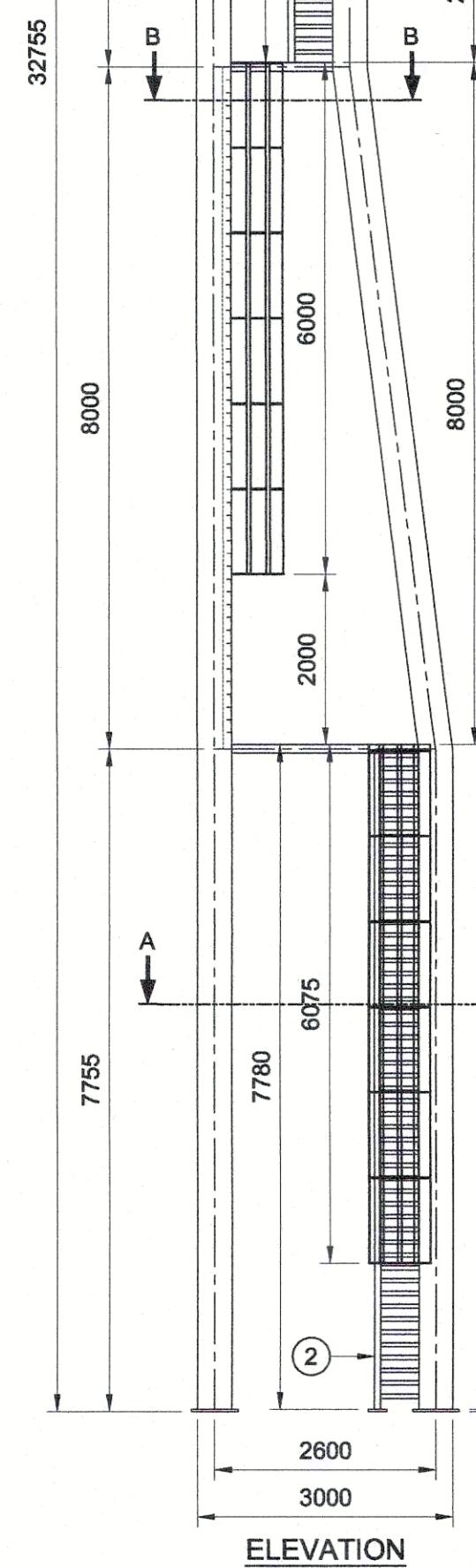
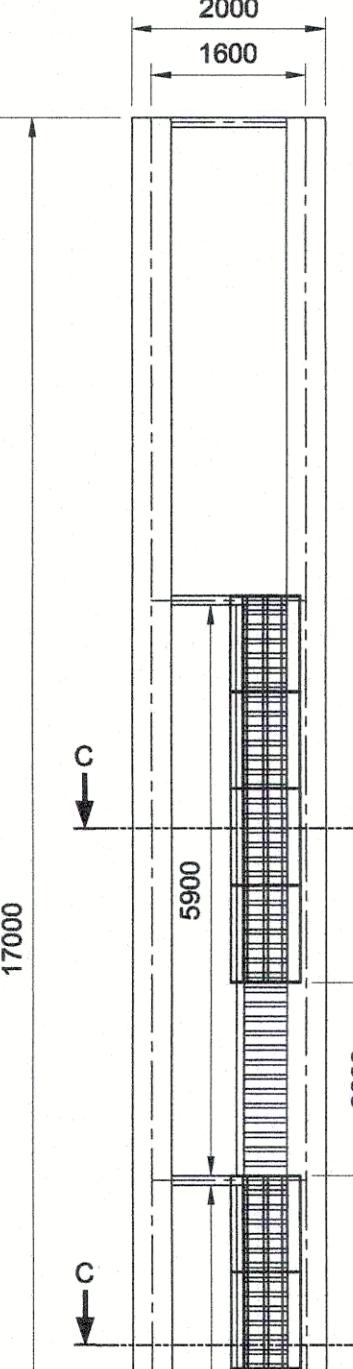
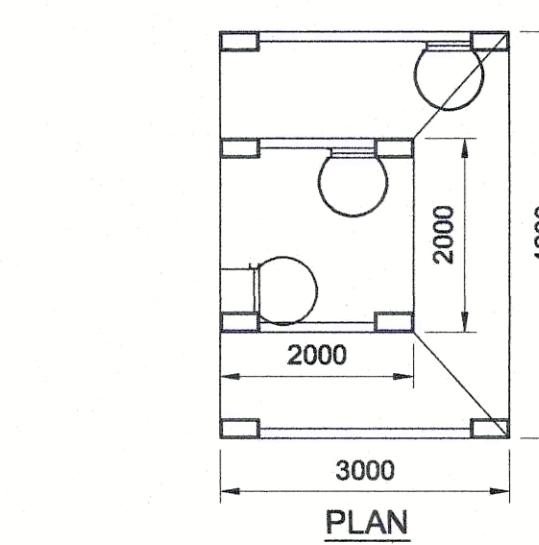
SCEND
SHAR CENTRAL DESIGNS

DESIGNED
DRAWN
DRG.CHECKED
APPROVED
SIGN: DATE

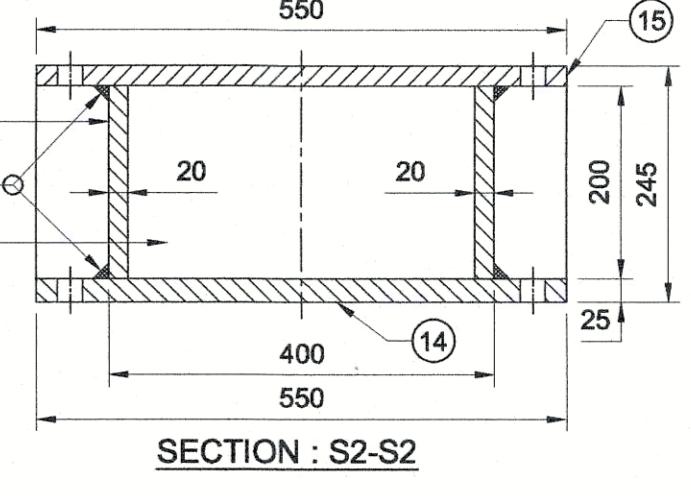
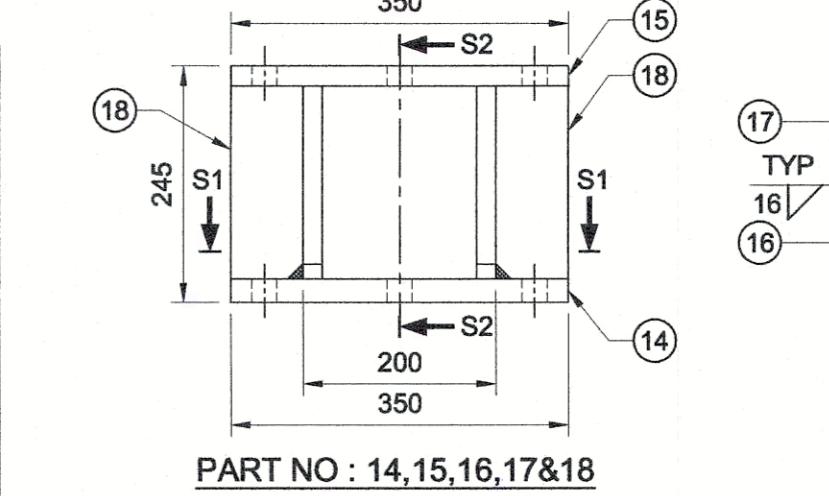
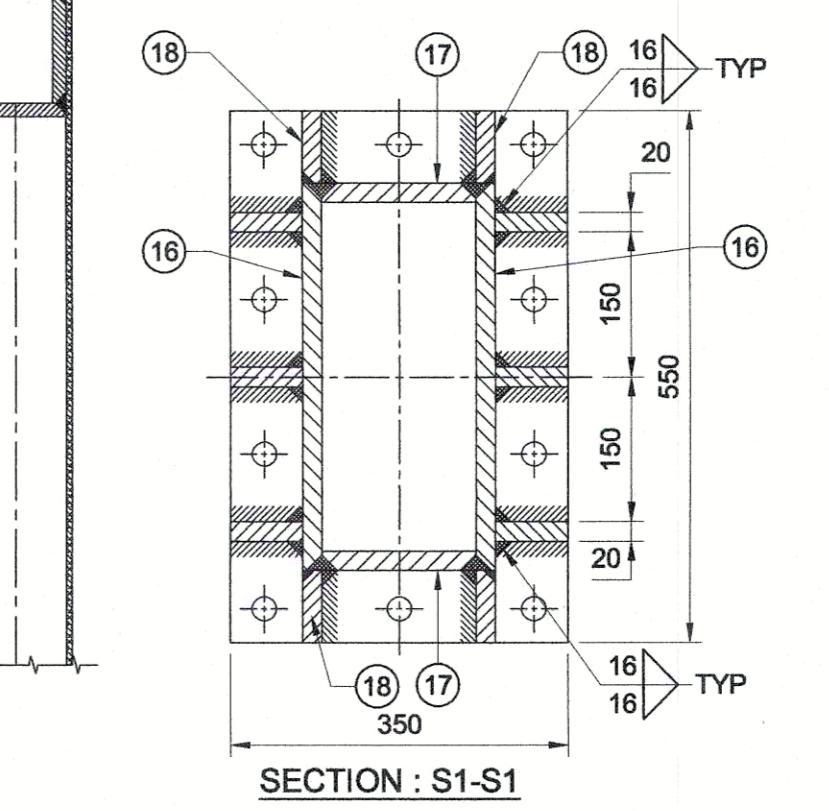
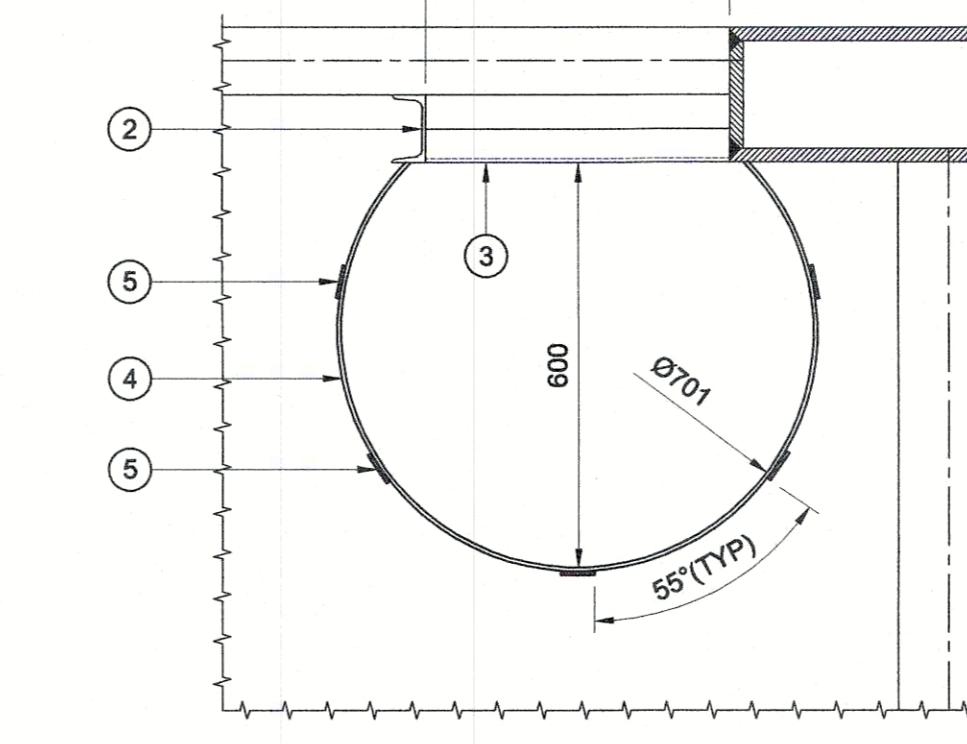
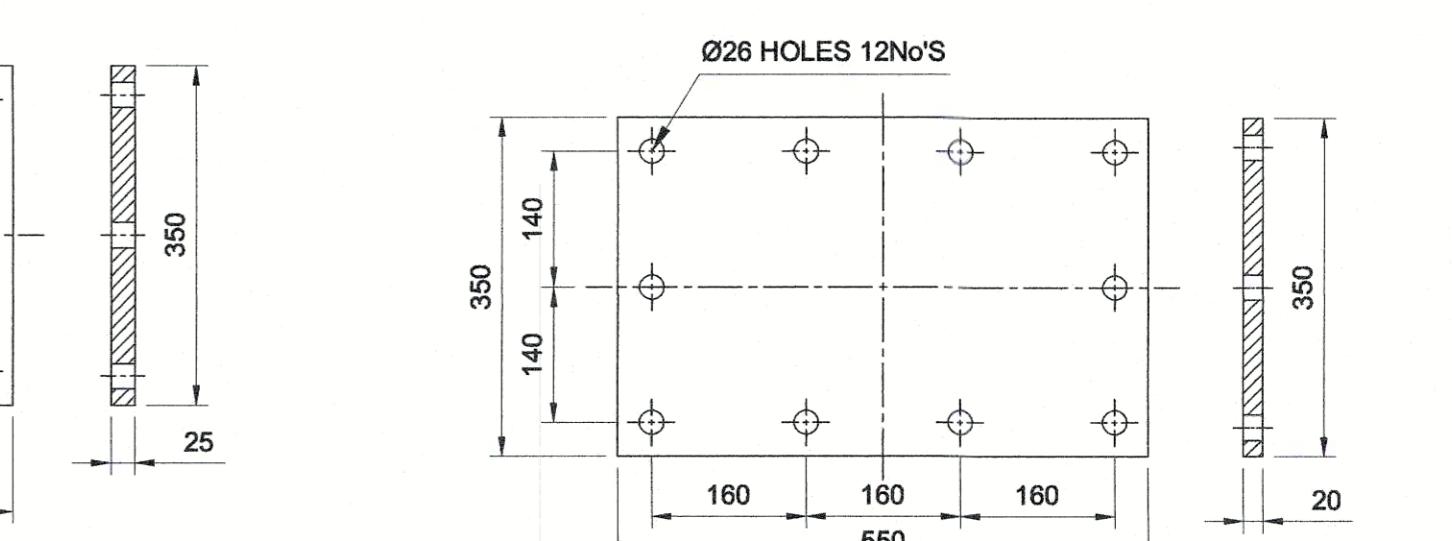
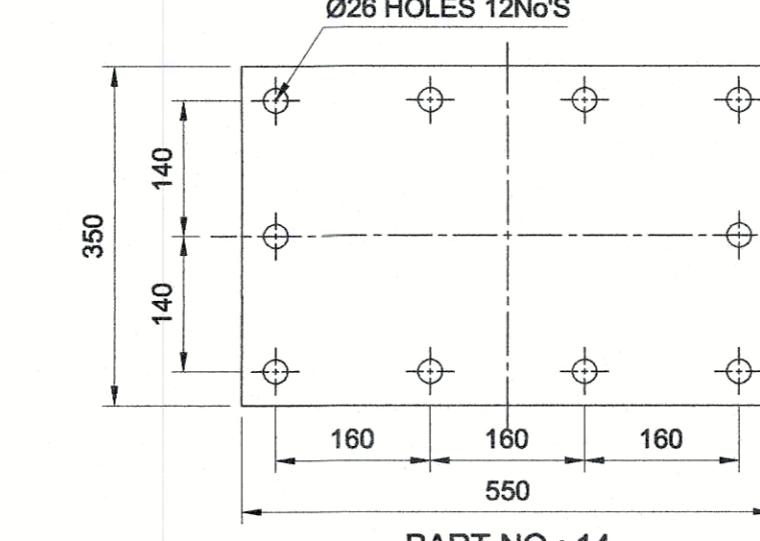
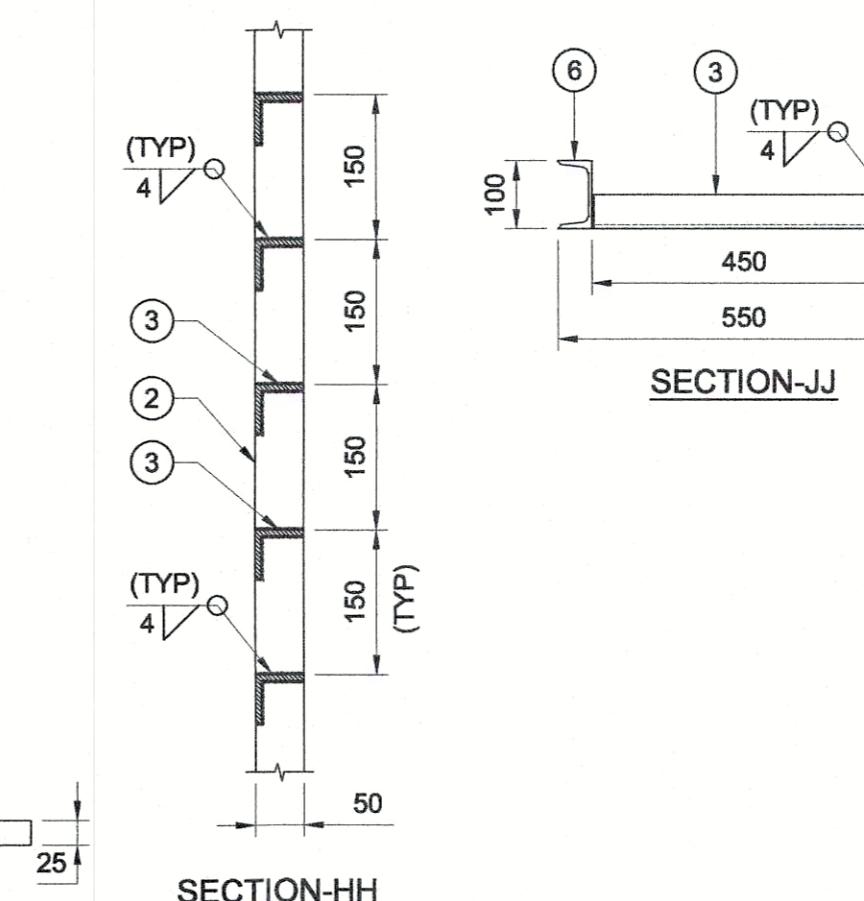
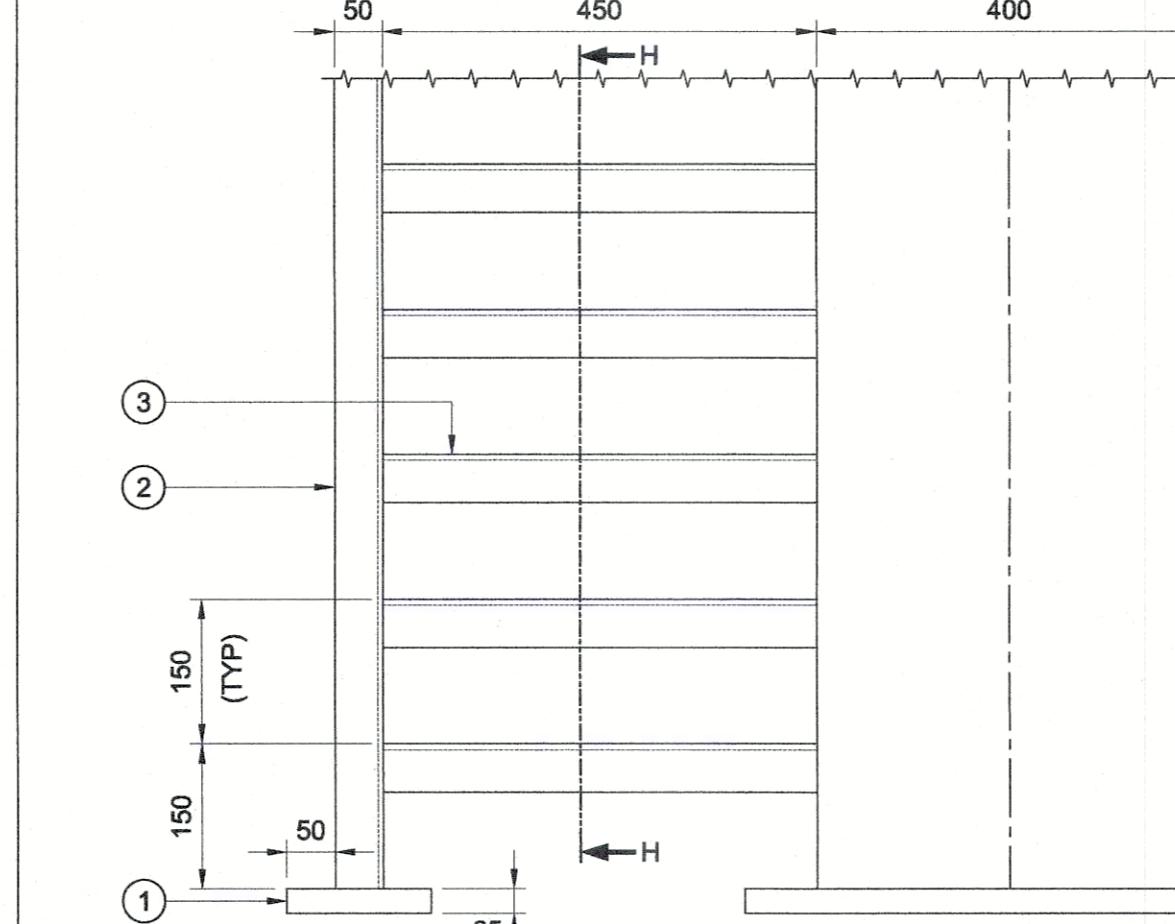
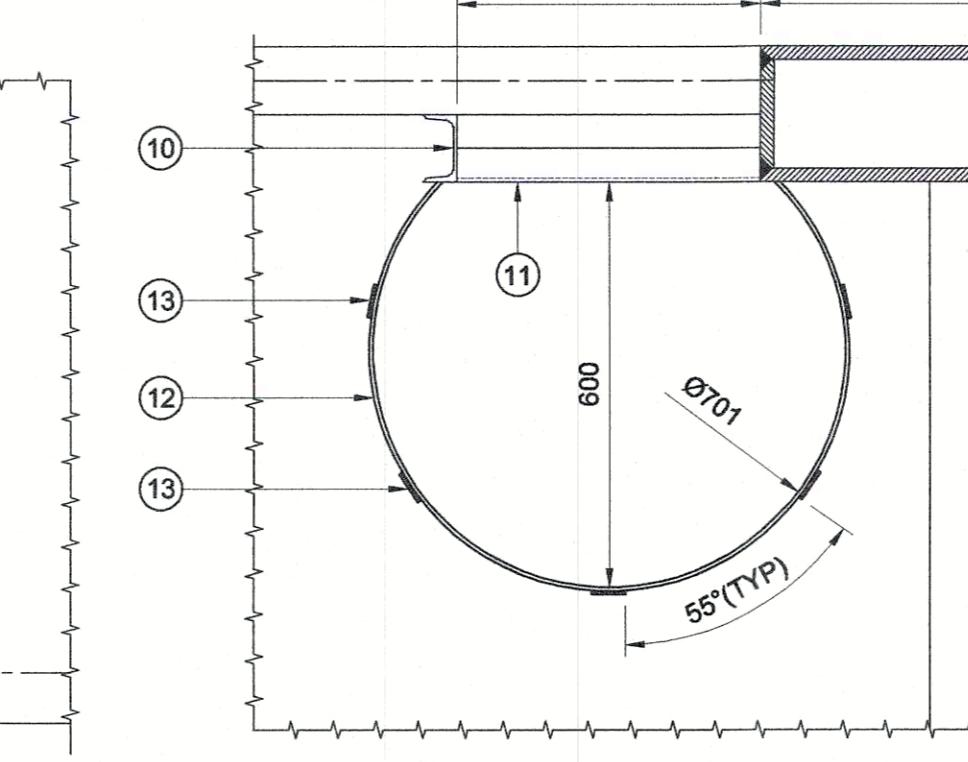
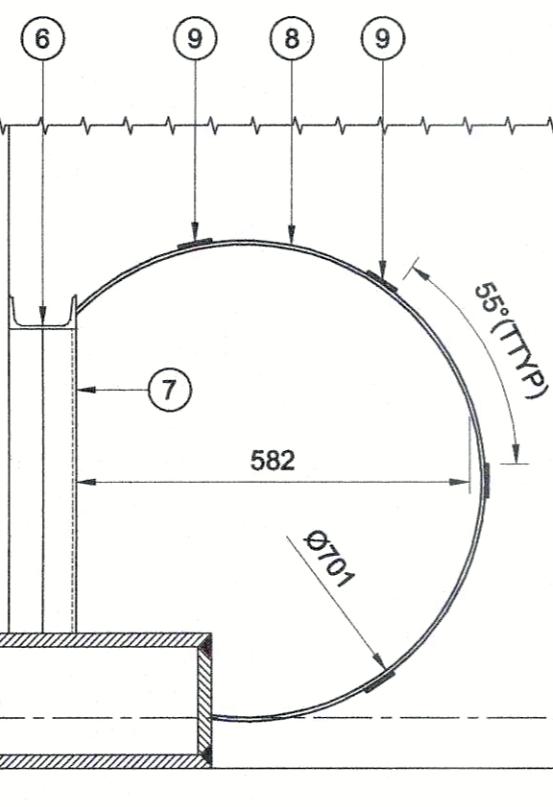
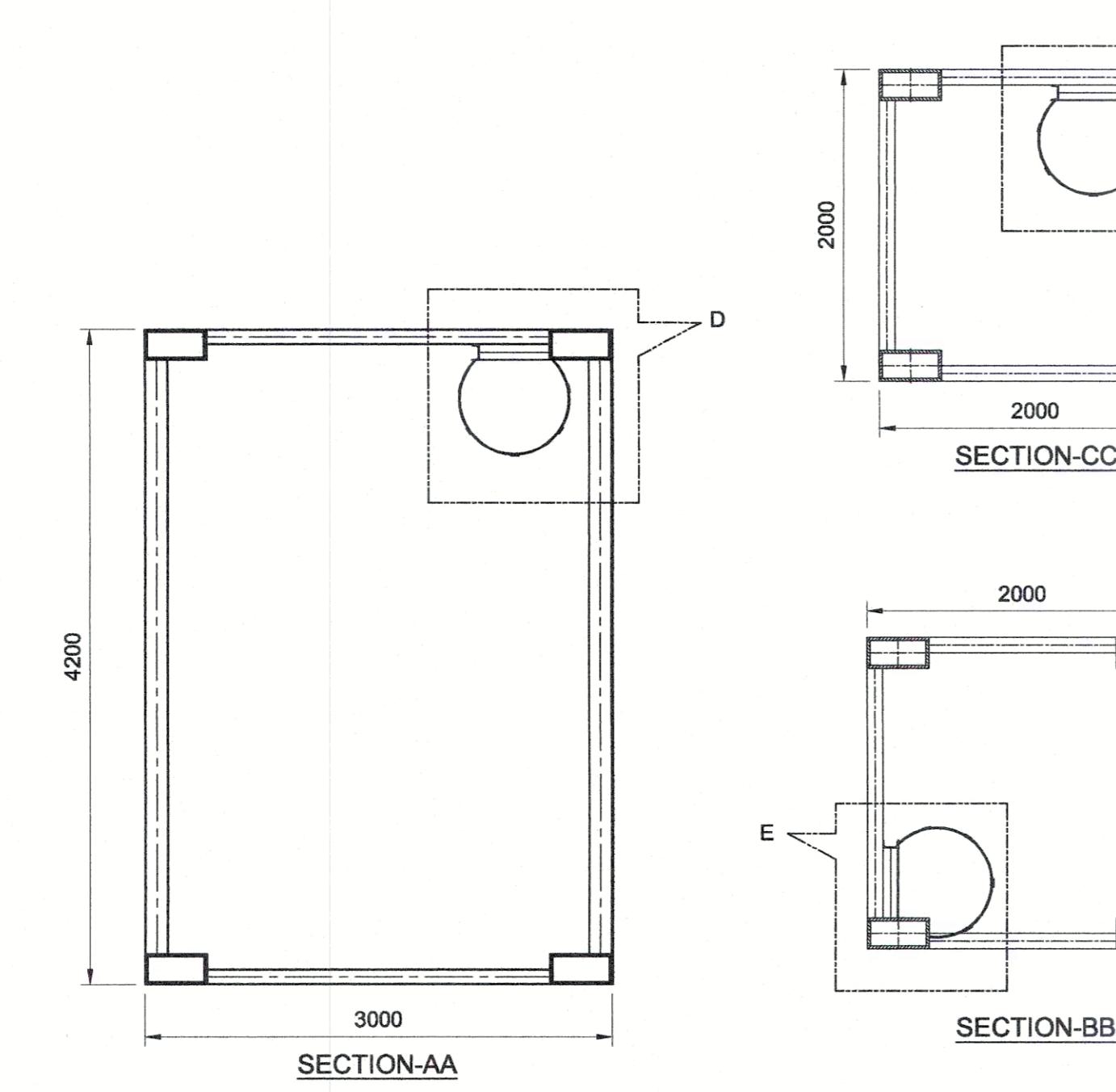
TITLE
UT PLATFORM LEVELS FOR MLS
(SLC PROJECT)

GOVERNMENT OF INDIA
INDIAN SPACE RESEARCH ORGANISATION
SATISH DHAWAN SPACE CENTRE SHAR
SHIARIKOTA

PROJECTION
SHEET 11
OF 14



STAIRCASE DETAIL (8m)
VIEW-B



UT MOUNTING DETAIL

TOTAL WEIGHT: 1429 kg(Approx.)

S.NO	DESCRIPTION	MATERIAL	QTY	W.T	REMARKS
16	STIFFENER 200 x 75 x 20Thk	IS:2062 Gr-B	40	94	
17	PLATE 200 x 160 x 20Thk	IS:2062 Gr-B	8	40	
16	PLATE 400 x 200 x 20Thk	IS:2062 Gr-B	8	100	
15	PLATE 550 x 350 x 20Thk	IS:2062 Gr-B	4	121	
14	PLATE 550 x 350 x 25Thk	IS:2062 Gr-B	4	151	
13	PLATE 4050 x 50 x 5 Thk	IS:2062 Gr-B	10	79	
12	ROD Ø10 x 1656 Lg	IS:2062 Gr-B	10	10	
11	ISA 50 x 50 x 6 Thk - 450 Lg	IS:808	78	158	
10	ISMC 100 - 5900 Lg	IS:808	2	109	
9	PLATE 6000 x 50 x 5 Thk	IS:2062 Gr-B	5	60	
8	ROD Ø10 x 1656 Lg	IS:2062 Gr-B	7	7	
7	ISA 50 x 50 x 6 Thk - 450 Lg	IS:808	52	105	
6	ISMC 100 - 8000 Lg	IS:808	2	147	
5	PLATE 6075 x 50 x 5 Thk	IS:2062 Gr-B	5	60	
4	ROD Ø10 x 1656 Lg	IS:2062 Gr-B	7	7	
3	ISA 50 x 50 x 6 Thk - 450 Lg	IS:808	51	103	
2	ISMC 100 - 7780 Lg	IS:808	1	72	
1	PLATE 200 x 150 x 5 Thk	IS:2062 Gr-B	1	6	

NOTE:

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- THE DIMENSIONS MARKED ARE CENTRE LINE DISTANCES.
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- EXACT LENGTHS TO BE CALCULATED FROM FABRICATION DRAWINGS.

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DISCUSSION / REVIEW		
TENDER PURPOSE	(C) 9/10/23	
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CHAMFER 1 MM. X 45°
MACHINING FINISH IN MICRONS :-
▽ 8 - 25 ▽▽ 1.6 - 8
▽▽▽ 0.025 - 1.6 ▽▽▽▽ < 0.025

DEVIATION FOR NON TOLERANCED DIMENSIONS
(IS -2102)

DIA.METERS & LENGTHS UPTO & INC. 6 ± 0.1	LENGTH IN M.M. OF SHORTER SIDE OF ANGLE UPTO & INCL
6 - 30 ± 0.3	30 - 120 ± 0.3
120 - 315 ± 0.5	315 - 1000 ± 0.8
315 - 1000 ± 0.8	1000 - 2000 ± 1.2
2000 - 4000 ± 2.0	4000 - 4000 ± 3.0
4000 & ABOVE ± 3.0	30-120 ± 0.2-20
	120-400 ± 0'-10

SCEND
SHAR CENTRAL DESIGNS
DESIGNED BY [Signature]
DES.CHECKED BY [Signature]
DRAWN SHIVAJI 05-10-23
DRG.CHK'D BY [Signature] 9/10/23
APPROVED BY [Signature]

TITLE UT STAIRCASE & MOUNTING DETAILS FOR MLS
(SLC PROJECT)
GOVERNMENT OF INDIA
INDIAN SPACE RESEARCH ORGANISATION
SATISH DHAWAN SPACE CENTRE SHAR
SRIHARIKOTA
PROJECTION
SCALE 1:50
DRG. NO. 10-STR-12-1-23/A1
SHEET 12
OF 14